

In the development of power supply,  
The cost of delay

In the process of developing a reliable source of long term power supply at an affordable rate to its members, Southern Montana Electric Generation and Transmission Inc. has faced long and costly delays. The estimated cost of construction of the Highwood Generation Station in November of 2007 was at \$750,000,000. The cost of construction a year later is approximately \$900,000,000, depending on materials costs and interest rates. The delay caused by the extreme environmentalists through appeals to the air quality permit, and lawsuits filed over the zoning of the Highwood Generation Station, has cost the member/owners of the cooperatives involved in the project a conservative \$150,000,000. This delay will cost an average consumer an additional \$27.85 a month on their power bills for the next 35 years, with no additional tangible benefit.

SME has been forthright and honest in our attempt to provide affordable, reliable, and the most environmentally conscious power supply we possibly can for the member/owners of our electric cooperatives. SME has strived to be a responsible member of our communities and the State of Montana. The MEIC, the Sierra Club and Earth Justice have done a huge disservice to the people who rely on us to provide them with affordable and reliable electric power. The additional revenue that will be spent on this plant will leave the State of Montana, and cause further economic harm to a fragile agricultural and tourism economy. As the cost of energy goes up, many of my friends and neighbors are switching back to wood and coal to heat their homes, with no control of PM2.5 or CO2.

In the spring of 2003, the five member cooperatives that formed Southern Montana Electric Generation and Transmission were faced with the need to secure a long term power supply contract at an affordable rate for their member/owners. The Bonneville Power Administration had notified SME that it would no longer have any excess power to sell to non-preference customers. Beginning in July of 2008, and by the end of 2011, SME would have to secure other wholesale power contracts sufficient to serve their member system loads.

The Board of Directors and the CEO of SME began the process of looking for long term power supply by directing the CEO to perform an Alternative Power Supply study. This study reviewed all the available options for the generation of electricity. The conclusion of that study was that the member systems best long term solution would be to construct its own clean coal technology generation plant.

Through relationships in the National Rural Electric Cooperative Association, the SME member cooperatives were invited to visit the East Kentucky Power Cooperative in Maysville, Kentucky. It was here that SME was introduced to Stanley Engineering Consultants who were in the process of building a Circulating Fluidized Bed coal fired power plant at the Spurlock Station in Maysville, Kentucky. This power plant was commissioned in April of 2004, and is now among the cleanest operating coal fired generation plants in the country.

In anticipation of securing Rural Utility Services financing, Stanley Engineering Consultants was subsequently hired by SME to again perform an Alternative Power Supply Evaluation study (AES) to determine the most suitable option to meet the long term power supply needs of the members of Southern Montana. This AES study reaffirmed that a CFB Coal fired Generation plant would be the best option for long term, affordable and reliable electrical energy. Stanley Engineering Consultants were then directed to perform an Alternative Site

Selection Screening study. They narrowed the potential construction sites to five locations. The criteria for the study included evaluation of available water resources, transmission capacity and construction costs, coal resources and delivery. The Salem site, located about 8 miles east of Great Falls, Montana, was chosen after a thorough due diligence process. The Salem site was also the preferred site identified by the former Montana Power Co. for their next electric generation plant in their Resource 89 Power Supply Study.

SME then began the long and tedious process of developing an Environmental Impact Study for the Rural Utility Service, and an Air Quality Permit for the Montana Department of Environmental Quality (DEQ). After nearly two years of work, the EIS and Air Quality Permit were simultaneously approved by the respective agencies in May 11, 2007. The Highwood Generation Station (HGS) would use the same state-of-the-art, circulating fluidized bed technology, which was used in Kentucky.

In July of 2007, The Montana Environmental Information Center and the Citizens for Clean Energy, with support from the Sierra Club and Earth Justice, filed an appeal of the Air Quality Permit #3423-00, to the Board of Environmental Review (BER). The issues raised in the appeal by the MEIC were the need to treat carbon dioxide (CO<sub>2</sub>) as a "regulated pollutant" subject to permitting and requiring a Best Available Control Technology (BACT) analysis. The appeal also questioned the use of particulate matter 10 microns in diameter and less (PM 10) as surrogate to address PM<sub>2.5</sub>. CO<sub>2</sub> was not considered a regulated pollutant by the US EPA.. PM<sub>2.5</sub> has been consistently regulated through the PM<sub>10</sub> surrogate method by both state regulatory agencies and the EPA because the regulatory permitting tools for PM<sub>10</sub> are in place and available. PM 2.5 emissions test methods are yet to be adopted by EPA, severely limiting reliable data to be considered in permitting PM 2.5 emissions. Finally, regulatory agencies have made the reasonable assumption that if you are capturing PM<sub>10</sub> you are also capturing a substantial percentage of PM<sub>2.5</sub>.

The BER serves as a quasi-judicial body in the State of Montana. The BER procedures are similar to that of a court hearing. The BER finally heard legal arguments regarding the appeal (filed on June 30, 2007) on December 21, 2007. On January 11, 2008, the BER held their first hearing, and agreed with the Department that CO<sub>2</sub> was not a regulated pollutant and therefore did not require permitting or a BACT analysis.

The PM<sub>2.5</sub> issue was held over for a full hearing on January 22-23, 2008, with the BER deferring their decision to a later meeting. The BER finally ruled on the PM<sub>2.5</sub> issue at their April, 2008 meeting. The BER ruled to remand the Air Quality Permit to the DEQ stating that the DEQ should have done a specific Best Available Control Technology analysis specifically for PM<sub>2.5</sub>. This was ordered despite testimony during the hearing on the lack of EPA emissions measurement methods and data for the pollutant, and that no other coal fired plant or industrial facility in the country had been required to do a specific BACT analysis for PM<sub>2.5</sub>.

A written Order from the BER stating what actions were to be taken was not completed until May 30, 2008. The DEQ and SME could not commence a BACT analysis until the Order was finalized. SME submitted a BACT analysis on PM<sub>2.5</sub> to the DEQ on June 6, 2008. The DEQ reviewed the BACT analysis, and worked with SME throughout the summer to complete the analysis. The preliminary determination presenting the results of the PM<sub>2.5</sub> specific BACT analysis in revised Air Quality Permit # 3423-01 was not issued until October 6, 2008, with public comment open until November 5th. The Department's Decision on Air Quality Permit

#3423-01 was issued November 10th, 2008. The delay to the commencement of construction for the HGS caused by the appeal brought by the MEIC and others, and the subsequent BER action to remand the Air Quality Permit 3423-00 for a BACT analysis of PM 2.5 was well over 16 months.

The original Air Quality Permit #3423-00 analyzed some 20 different technologies for the capture of particulate matter. For the specific PM2.5 analysis, the DEQ looked at 105 combinations of technologies. The BACT analysis estimates that some 19,320 ton of PM2.5 per year would be produced by the operations of HGS. The preferred PM2.5 technology using an EDFGD-ICFFB (enhanced dry flue gas desulphurization and intrinsically coated fabric filter bag house) combination is estimated to capture some 19,093 tons with control efficiency of 98.82%. The conclusions of the specific PM2.5 BACT analysis are that an additional 27 tons of PM2.5 may be captured annually, a gain in efficiency of about .0013%.

John Prinkki, President

Beartooth Electric Cooperative.